



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,105	02/22/2002	Hiroyuki Adachi	111232	1162
7590 Oliff & Berridge PO Box 19928 Alexandria, VA 22320		09/06/2007	EXAMINER RUHL, DENNIS WILLIAM	
			ART UNIT 3629	PAPER NUMBER
			MAIL DATE 09/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/980,105

Applicant(s)

ADACHI ET AL.

Examiner

Dennis Ruhl

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,6,8-16,18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6,8-16,18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Applicant's response of 6/29/07 has been entered. The examiner will address applicant's remarks at the end of this office action.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1,3,5,6,8-16,18,19, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claims 1,3,5,6,8-16,18,19, it is not clear as to whether or not the "tie -up station side device", the "tie up station", or the "refueling station" are being claimed as part of the construction machine refueling system. This is because the only place the tie-up station (refueling station) and the tie-up station side device are mentioned is in the language that describes what kind of data the transmitter is configured to transmit. One wishing to avoid infringement would not know if the tie-up station and the tie-up station side device are part of the claimed system or not. This renders the claim indefinite. Claiming that a device is configured to communicate with another device is not the same as claiming that the another device is positively claimed as part of the system. It is not reasonably clear if the claim includes the "tie up station", or the "refueling station", etc..

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1,3,5,6,8-16,18,19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Apsell et al. (6292724) in view of Kane et al. (6078850).

For claims 1,3,6,8,9,18, Apsell discloses a method and system where construction equipment (construction vehicles) are monitored and tracked via GPS as well as being monitored with various vehicle sensors. The construction equipment (vehicles E) have a GPS unit that determines vehicle location and there is a transmitter (the transponders T) that sends the location information to a central base station (ground station GS). The vehicles also have various sensors that relay information concerning the vehicle to the transponder for transmission to the base station. One of

Art Unit: 3629

the sensors is disclosed as being a fuel level sensor. See figure 4. Also see column 4, line 50 to column 5, line 39 where the fuel sensor is disclosed along with the reasoning as to why this variable is important to the equipment operator. *The operation wants to know how much fuel is left in the vehicles so that it can be determined whether or not a truck needs to be sent out to refuel the vehicle and if so, how much fuel is needed.* In column 5, lines 40-49 it is disclosed that the sensors may also be provided with the ability to activate the transponder in the event that an alarm condition is detected. The alarm condition can be operational parameters being out of range or safe values, or out of ranges for equipment location or out of ranges for allowed times of operation, etc.. Not disclosed is that if the fuel level drops below a certain level, information indicating the fuel level is transmitted to the base station by the transmitter. In addressing this issue the examiner takes "official notice" that it is old and well known in the art of vehicles to have a low fuel indicator (usually a light and a noise) to indicate to the driver that the vehicle is low on fuel. This indication is done when the fuel level drops below a certain value. This is done to alert the operator that the fuel level is low and allows one to refuel in a timely manner so that you do not run out of fuel. This feature is old and well known in the art. Taking this fact into account, and in view of the disclosure in column 5, lines 40-49 concerning the sensors and alarm conditions pertaining to operational parameters being out of range or safe values, one of ordinary skill in the art at the time the invention was made would have found it obvious to modify Apsell to detect when the fuel level (an operational parameter) of a vehicle drops below a certain value, and to transmit that fact to the base station, so that it can be determined whether

Art Unit: 3629

or not a fuel truck needs to be sent out, and if so, how much fuel is needed (from column 4, lines 50-56). An alert of low fuel level is already known in the art. Based on this fact and the teaching of Apsell that operational parameter alarm conditions for the sensors are transmitted to the base station, one of ordinary skill in the art would have been motivated to modify Apsell as set forth by the examiner. See column 3, line 64 to column 4, line 2, where it is disclosed that location information is transmitted as claimed to the base station. The base station is also provided with a transmitter (communication relay S, see figure 1). See column 5, lines 45-49 where it is disclosed that special requests can be made to the transponder to transmit data to the base station. This request is sent through the base station side transmitter.

Not disclosed is that the base station transmitter is configured to transmit information relating to a request (can be other than the request itself) for refueling to a tie-up station with a tie-up station device. The language about sending out a truck to refuel the construction machine is noted, but is not linked to any recited structure of the system. The tie-up station *device* is not being claimed as performing this step, so it can be a human being at the tie-up station that does this step; therefore no further structure is defined by this limitation.

In support of the obviousness rejection, the examiner takes "official notice" of the fact that it is very well known that there are companies in existence that provide mobile refueling services for customers, such as construction machine operators and other types of equipment operators. One such company is "Streicher Mobile Fueling, Inc". They provide mobile refueling services for vehicles and equipment. It is known in the

Art Unit: 3629

art of vehicles and construction equipment that there are companies that can be called upon to send out a truck to a given location to refuel a vehicle or piece of equipment for a customer. One of ordinary skill in the art is aware of this fact.

Kane discloses a system and method for fuel management of trains. Kane discloses that there is a central station 3 that has a processor that receives fuel data from the trains. The processor also has software (a selector) that polls various refueling locations (fixed and mobile) for pricing information for fuel, and based on the received fuel pricing information, the train location, and the train fuel level, determines the best location for refueling. See column 4, lines 31-53 as well as the entire patent to Kane. One of ordinary skill in the art is clearly concerned with the pricing they would pay for fuel, as well as getting fuel in an expeditious manner, so for economic reasons, a business owner would want to try to find the best price they can for their fuel, subject to location limitations of course. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of Apsell with a selector software program that can poll various mobile vehicle refueling locations (businesses) for pricing information so that it can be determined where the best location is to refuel based on location and price. This would allow the cost savings discussed by Kane to be obtained by the system of Apsell. The act of polling for fuel prices with a resulting request to refuel satisfies the claimed "transmit information relating to a request". The examiner views the claim as a whole as simply taking the business model for refueling trains disclosed by Kane and applying it to construction equipment (vehicles) to obtain the results that one of ordinary skill in the art would expect to be realized. The process

Art Unit: 3629

set forth by Kane can easily be practiced with vehicles and construction equipment with the same results being obtained, and it is known in the art that there are vehicle and equipment mobile refueling companies that provide mobile refueling services, so one of ordinary skill in the art would have found it obvious to try and apply this business model to the construction equipment industry with respect to refueling of construction machines so that its benefits could be realized. Once the refueling location (business) has been determined, at that point, it would have been obvious to one of ordinary skill in the art at the time the invention was made to request that a truck be sent out to refuel the construction machine so work can continue, which also obviously includes positional information as claimed so that the fuel truck knows where it is that they are supposed to go to. This step naturally follows the step of choosing a refueling location or business., once that is done then a request to refuel is sent out.

For claim 5, applicant has claimed that the transmitter is configured to send the information relating to the residual fuel amount to a user side receiver. This seems to be reciting that the transmitter is configured to send back the same information it received from the construction machine. This is not specifically disclosed in the prior art combination. The examiner feels once a refueling provider has been selected (after the polling takes place), it would have been obvious to one of ordinary skill in the art to send a communication to the operator of the construction machine (via a user side receiver) so that they know if and when they are going to be refueled. Common sense would dictate that once you send out a request to refuel a given machine, you would want to let the operator know so that they are informed as to the situation with their fuel. One

Art Unit: 3629

would not want an operator to move the machine to a new location without realizing that a fuel truck is on the way to refuel the construction machine. One of ordinary skill in the art would have found this obvious.

For claims 8, in addition to that disclosed above, and claims 10,11,13, applicant has claimed that the selection of a refueling station is based on information relating to refueling and a predetermined criteria. The claimed information relating to refueling and/or the predetermined criteria can be the fuel per unit price that is being polled for, how much fuel is needed and/or the location information of the refueling providers that is taken into account or can be other information as this term is broad and is not limited to any specific information. With respect to the predetermined criteria, the selector must choose from a list of available providers. This is inherent to the prior art rejection. Polling of refueling providers cannot occur by using computer software if there is not a database that has the stored providers, so that the software knows whom to poll. The selection of a refueling provider is inherently based on a pre-stored list in a database as claimed.

For claims 12,16, the selection of a fuel provider is done by taking into account location as claimed. This is part of the process taught by Kane and is therefore part of the combination as set forth by the examiner.

For claims 14,15, with respect to the "invoice creating unit" that creates an invoice, the prior art does not disclose this feature. In Apsell, information relating to the construction machines (such as fuel levels) is received at the base station so that the owner can efficiently and better manage and service their equipment. The data

Art Unit: 3629

received at the base station is important to the owner of the company that owns the fleet of construction machines. In view of this fact, one of ordinary skill in the art at the time the invention was made would have been motivated to record and store the data relating to the construction machines and the fuel that they receive, so that the owner has a record on file of the usage of certain machines including fuel usage data. With The claimed invoice can simply be a document that specifies how much fuel a given machine needs or was given (for accounting purposes). One of ordinary skill in the art at the time the invention was made would have found it obvious to provide the base station computer system of Apsell with a invoice creating unit that can create a document that shows how much fuel a given construction machine was given and that sends the invoice to a accounting storage medium (customer side device) for recordkeeping purposes. This is something that one of ordinary skill in the art would have found as obvious based on the level of ordinary skill in the art and based on the teachings of Apsell and the information that Apsell is concerned with (fuel). One of ordinary skill in the art is clearly concerned with invoicing the fuel purchases for respective machines, which is more or less performing an accounting function, something that is very well known in the art.

For claims 6,19, Apsell discloses a method and system where construction equipment (construction vehicles) are monitored and tracked via GPS and vehicle sensors. The construction equipment (vehicles E) have a GPS unit that determines vehicle location and there is a transmitter (the transponders T) that sends the location information to a central base station (ground station GS). The vehicles also have

Art Unit: 3629

various sensors that relay information concerning the vehicle to the transponder for transmission to the base station. One of the sensors is disclosed as being a fuel level sensor. See figure 4. Also see column 4, line 50 to column 5, line 39 where the fuel sensor is disclosed along with the reasoning as to why this variable is important to the equipment operator. The operation wants to know how much fuel is left in the vehicles so that it can be determined whether or not a truck needs to be sent out to refuel the vehicle and if so, how much fuel is needed. Not disclosed is that the base station has a determination unit that determines whether or not the received fuel level is below a specified value. In addressing this issue the examiner takes "official notice" that it is old and well known in the art of vehicles to have a low fuel indicator (usually a light and a noise) to indicate to the driver that the vehicle is low on fuel. This indication is done when the fuel level drops below a certain value. This is done to alert the operator that the fuel level is low and allows one to refuel in a timely manner so that you do not run out of fuel. This feature is old and well known in the art. Taking into account that the reason the fuel level is being transmitted to the base station is so that it can be determined when certain vehicles need refueling, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the base station with a determination unit (software program) that determines whether or not the received fuel level is below a specified value, so that the operator can be alerted to vehicles that have low fuel levels and that will need refueling in the near future. This is the reason the fuel level is being tracked, so that you can ensure the vehicles do not run out of fuel. The base station is also provided with a transmitter (communication relay S,

Art Unit: 3629

see figure 1). See column 5, lines 45-49 where it is disclosed that special requests can be made to the transponder to transmit data to the base station. This request is sent through the base station side transmitter. The base station transmitter is capable of sending out requests in the form of data.

Not disclosed is that the base station transmitter is configured to transmit information relating to a request (can be other than the request itself) for refueling to a tie-up station with a tie-up station device. The language about sending out a truck to refuel the construction machine is noted, but is not linked to any recited structure of the system. The tie-up station *device* is not being claimed as performing this step, so it can be a human being at the tie-up station that does this step; therefore no further structure is defined by this limitation.

In support of the obviousness rejection, the examiner takes "official notice" of the fact that it is very well known that there are companies in existence that provide mobile refueling services for customers, such as construction machine operators and other types of equipment operators. One such company is "Streicher Mobile Fueling, Inc". They provide mobile refueling services for vehicles and equipment. It is known in the art of vehicles and construction equipment that there are companies that can be called upon to send out a truck to a given location to refuel a vehicle or piece of equipment for a customer. One of ordinary skill in the art is aware of this fact.

Kane discloses a system and method for fuel management of trains. Kane discloses that there is a central station 3 that has a processor that receives fuel data from the trains. The processor also has software (a selector) that polls various refueling

Art Unit: 3629

locations (fixed and mobile) for pricing information for fuel, and based on the received fuel pricing information, the train location, and the train fuel level, determines the best location for refueling. See column 4, lines 31-53 as well as the entire patent to Kane. One of ordinary skill in the art is clearly concerned with the pricing they would pay for fuel, as well as getting fuel in an expeditious manner, so for economic reasons, a business owner would want to try to find the best price they can for their fuel, subject to location limitations of course. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of Apsell with a selector software program that can poll various mobile vehicle refueling locations (businesses) for pricing information so that it can be determined where the best location is to refuel based on location and price. This would allow the cost savings discussed by Kane to be obtained by the system of Apsell. The act of polling for fuel prices with a resulting request to refuel satisfies the claimed "transmit information relating to a request". The examiner views the claim as a whole as simply taking the business model for refueling trains disclosed by Kane and applying it to construction equipment (vehicles) to obtain the results that one of ordinary skill in the art would expect to be realized. The process set forth by Kane can easily be practiced with vehicles and construction equipment with the same results being obtained, and it is known in the art that there are vehicle and equipment mobile refueling companies that provide mobile refueling services, so one of ordinary skill in the art would have found it obvious to try and apply this business model to the construction equipment industry with respect to refueling of construction machines so that its benefits could be realized. Once the refueling location (business)

Art Unit: 3629

has been determined, at that point, it would have been obvious to one of ordinary skill in the art at the time the invention was made to request that a truck be sent out to refuel the construction machine so work can continue, which also obviously includes positional information as claimed so that the fuel truck knows where it is that they are supposed to go to. This step naturally follows the step of choosing a refueling location or business., once that is done then a request to refuel is sent out.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. "Streicher Mobile Fueling appoints new CFO" discloses the fact that they provide mobile refueling services for customers, something that is well known in the art.

7. Applicant's arguments filed 6/29/07 have been fully considered but they are not persuasive.

With respect to the 112,2nd rejection concerning the "tie-up station", applicant has not provided any specific argument concerning this limitation and the issue has not been rendered moot by amendment. It is still not clear as to what is being claimed. The claims do not point out the metes and bounds of the claim scope with a reasonable degree of particularity for the reason set forth by the examiner. A person of skill wishing to avoid infringement must be put on notice as to what the claim covers, when this is not clear, the claim is indefinite. The argument is noted but is not seen as persuasive with respect to this issue.

The arguments concerning prior art rejections no longer being made are noted but are believed to be moot based on the current grounds of rejection.

With respect to the 103 combination of Apsell in view of Kane, applicant has argued that *"there is no asserted motivation to combine the references in the manner suggested by the office action"* that meets the standard set forth by the Federal Circuit. This erroneous standard for obviousness set forth by the Federal Circuit was recently specifically address and rebuked in the Supreme Court Case of KSR International Co. v. Teleflex Inc.. The Supreme Court specifically addressed arguments of this kind and have foreclosed this type of argument. Applicant is arguing old law that was found to be too restrictive and was found to be erroneous by the Supreme Court. The standard for obviousness being argued is not the current law and standard for obviousness as set forth by the Supreme Court. This argument is not persuasive. Applicant has to present reasoning as to why the claim limitations are not obvious and should address the comments from the examiner. The examiner has set forth a reasoned explanation of why certain features are considered to be obvious. A persuasive traversal must address this reasoning as this is the basis for the rejection. To do otherwise is not addressing the rejection of record as far as the 103 rejection of Apsell in view of Kane is concerned.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Ruhl whose telephone number is 571-272-6808. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on 571-272-6812. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DENNIS RUHL
PRIMARY EXAMINER